--- THE THEATRE. ---

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-- by William Penn Stephenson ---
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THE THEATRE.

INTRODUCTION.

Architecture is a plastic instrument for service.

Fundamentally utilitarian, its inception, variance, and even very existence, all are due directly to human need. Beauty of form, of proportion and of ornament have existed for thousands of years, and will exist, but there is no Architecture that has ever sprung into being without demand, that has not been modified to meet change in demand, that has ever existed past that period during which it was the most logical, economic and satisfying solution of the problem presented by the needs which it was to fill. This is why Architecture has been through all the

yesterdays, is today, and will be through all the tomorrows a vibrant, living, infinite thing.

The purpose of this paper is to consider one development of Architecture, the Theatre, to show in what manner rise in drama called the theatre into being, and by descriptions of particular structures and by comparison and analysis of general types of theatres to show the architectural response to the changing demands of the times. Much attention must necessarily be paid to the productions, for verily with the theatre of today as with the theatre of the Greeks "the play's the thing".

THE GREEK THEATRE.

"In Greece religion was the cradle of the drama". The very origin of the drama is in the semi-religious, semi-patriotic gatherings at which were related the traditions of the divinity or divinities of the particular town and state, for such was the earliest division of government. From this developed as early as the Seventh Century B.C. the custom of raising an altar in the "agora", or

market-place, where at certain specified times the choir of priests assembled and chanted hymns of praise to the deity and sacrafices and votive offerings were received.

By the middle of the sixth century the type of religious festival was firmly fixed, the most popular, and hence the one of which the greatest amount of written evidence remains, was the worship of Dionysus at Athens. At first, as has been said, the ceremony was merely a chant by a choir of priests. More of the festival crept into the religious ceremony, and the choir became a chorus. Naturally enough a leader of the chorus arose for the better guidance and more concerted action of the mass. The difficulties in the presenting of the desired stories entirely in the form of chants caused another gradual change, and soon was evolved the true Dionysia, or Festival of Dionysus. This was clearer and much more comprehensive than any ceremony that had heretofore existed, consisting as it did in the

recital of tales of the god by a "narrator" or poet singer and the chanting of an ode or "dithyramb" by a chorus of satyrs. The recital of the narrator was acted as well as sung, the chorus repeating his words, or taking up some known refrain.

The theatre of this period was the most simple form possible. With the altar as a central feature a circular area was marked off for the chorus. Outside of this circle the spectators ranged themselves as they pleased. Encroachments upon this reserved space led to a low wall, probably only a few inches in height, marking its boundary, and so appeared the enclosure known as the "orchestra" or dancing space.

Gradually the dithyramb and phallic songs reached perfection, andthey became true lyric poems. Some unknown narrator, a bolder and hardier spirit than his fellows, created the first great innovation. By the simple erection of a table or small platform beside the altar, he raised himself among his company for their

better guidance. This was a veritable inspiration, for by the employment of this vantage point the dialogue between the narrator and the remainder of the chorutae, the germ from which the drama, both Tragedy and Comedy, subsequently developed, was in a dramatic sense strengthened a hundred fold; and, more than that, the stage was conceived. For time developed this humble beginning into the wonderful picture-stage of today with all of its realism and scenic illusion.

The next radical step was the introductien of a single actor by Thespis, an act so marked and having such a great influence over subsequent develppments that actors are even today known by the name of Thespians. The actor was forced to play many parts in succession, and it was necessary that he should be provided with a retired place convenient of access in which he could rapidly change his dress and mask. To meet this emergency a tent or booth was erected at the back of the small platform upon which he performed.

From this booth or tent was developed the elaborate stage building, or, more properly, were developed the stage buildings, for there were several. Elaborate as these structures became during the later period the recollection of their origin was preserved in their collective name skênê, which means properly booth or tent.

Gradually the market-place was forsaken in favor of the sanctuary, and natural amphitheatres were sought for in order to accomodate a greater number of spectators, for the entire community was included in the theatre-going populace, and also to make up for the loss of space due to the stage development. For the spectators who had formerly been ranged completely around the circle in which the chorus was performingwere now restricted to but two-thirds of that circle, the remaining portion being taken up by the stage and its buildings.

At this early period the structures were only temporary. The seats provided for the spectators

were called "ikria" and were merely wooden benches rising in tiers and resting upon wooden supports. The stage and dressing-rooms were also merely temporary wooden structures. But in these rude erections, hastily put up each year for the annual performances , were already to be found all the essential parts of the later Greek theatres. Special notice should be taken of the fact that the starting-point of the whole process of theatre development was the place for the chorus, or the orchestra. The auditorium, stage and stage-buildings were later additions. Throughout the entire period of development of the Greek theatre the orchestra holds its prominent position, all other parts being subordinated to it. Or, to put it more exactly, the general conception of a theatre of purely Greek design is of a structure with a circular dancing space in the center, and with tiers of seats arranged around two-thirds of this ring, while the remaining side is occupied by the stage and its dependancies. As one can

readily see, all spectators were favored with an equally good view of any action taking place in the orchestra, while many had an indifferent view, if not a very poor one, of the stage. The Greek theatre was designed for choral performances rather than for dramatic presentations; all important action took place in the orchestra, the part of the stage being of secondary importance. This fact will be further mentioned in the particular descriptions of some of the permanent structures.

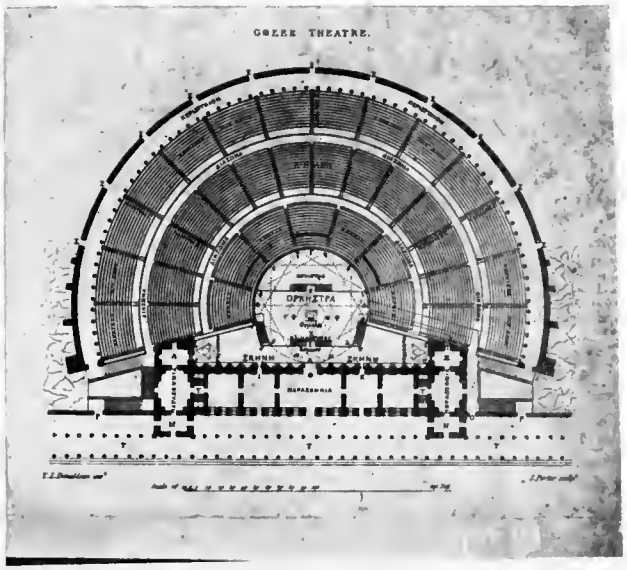
The development of the drama from the period of the single actor was very rapid. The narrator who had been regurgitated to the position of leader of the chorus was rehabitated to the dignity of a minor actor, giving the possibility of slight variation of plot. Then he became a second principal actor, creating for the dramatist the liberty of dialogue independent of chorus action. More minor characters were introduced, messengers and the like, recruited for the most part from the chorus, who could be employed to treat or explain action which was not directly visible but which

was occurring or had occurred in another place, as on a battle-field or in another city. In the time of Sophocles the third actor was added and the number of the chorus set at fifty members, here the Classical Tragedy had its final form. The perfection of the Satiric Drama is very closely allied in time and is similar in numbers, although a much more direct outgrowth of the older Dionysia. During the Fifth Century the Tragic Contests were established in Athens. During the same period decorative scene-painting was developed. A certain type of plot was created and adhered to, probably for the convenience of the spectator. All action took place in the open air; the events usually occurring before some building or in a desert place, typified by a rock or cavern. The stage usually presented three entries through the wall at the back and two minor entrances, one at each end of the stage. The openings at the bottom, or back, were reserved for characters who entered from near by, the central or principal entry being used by those who entered from the immediate cave

or building. The right-hand entrance was for the people who came from the near-by town or village, strangers from a distance always entered at the left. Properties werw quite extensively used in productions. Statues, obelisks, and even chariots were employed, as were many other ingenious devices for adding what is known as "local color".

The Form of the Greek Theatre.

The Greek theatre, although still a wooden structure, now had its final form. In plan it was approximately two-thirds of a circle, and consisted of two parts: the σκηνὴ, or scena, and the κοιλον, or cavea. The scena, which at first had been merely a partition across the stage, often nothing more elaborate than a screen of boughs and leaves, had



become the elaborate stage wall with its several openings.

The whole skene was divided into several parts, the most remarkable of these were-- the βροντεῖον, brontaeum, under the floor, where were kept vessels full of stones, and other devices for imitating the sound of thunder; the επισκηνιον, episcenium, a place on top of the scene in which were placed the machines for changing the various figures and prospects, including an ingenious device known as the periaktoi, a set of three revolving prisms at each end of the stage, the faces of which together with the back wall would give three changes of scene; the παρασκήνιον, parascenium, or dressing rooms; the προσκήνιον, proscenium, or stage, on which the actors performed; the ὀρχήστρα, orchestra, where the chorus action took place, in the middle of which was placed the λογεῖον or θυμέλη, pulpitum or altar; the υποσκηνιον, hyposcenium, was the part under the pulpitum where the music was placed; the κοῖλον, cavea, or auditorium, the seats of which were divided into two or three horizontal bands by low walls known as ΔΙΑΖΩΜΑ,

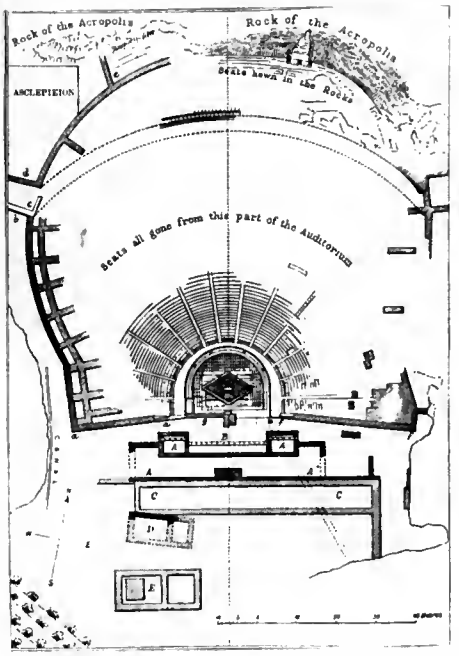
or diazoma, and divided into sections by stairways. The lowest horizontal division was appropriated th persons of rank and magistrates, the middle group was assigned to the commonalty, and the upper one was given over to the women and children. Round the cavea porticoes were erected for shelter during rainy weather, as the Greek theatres had no roofs. All that remained was for this form to be taken bodily and built of more permanent materials, and for the refinements of design.

The Theatre of Dionysus.

The theatre of permanent materials was probably hastened by an accident during one of the tragic contests. Historical record says that in the year 499 B.C. the competitors in the Tragic Contest were Pratinas, Choerilus and Aeschylus. While Pratinas was exhibiting the wooden benches collapsed under the crowd of spectators, this accident led to the determination on the part of the Athenians to construct a permanent stone structure. Although this work was begun immediately it was executed very gradually and probably in parts, as the theatre did not have its final form

until about 325 B.C. The site chosen was on the south-eastern slope of the Acropolis in the Lenaeum, or sacred enclosure of Dionysus, a little to the east of the former temporary theatre. Although the theatre faced almost directly south, a condition which, as Vitruvius points out, should be avoided on account of the tremendous heat and the glare due to the direct exposure of the bowl of the auditorium to the rays of the sun, still in the Theatre of Dionysus the adoption of this "parti" seems to have been deliberate, and for two reasons- this was the only natural site unless they should forsake the Lenaeum, also, since the competitions for which the theatre was principally designed were held in the late winter and early spring, the warmth and shelter of the rock of the Acropolis were not at all undesirable.

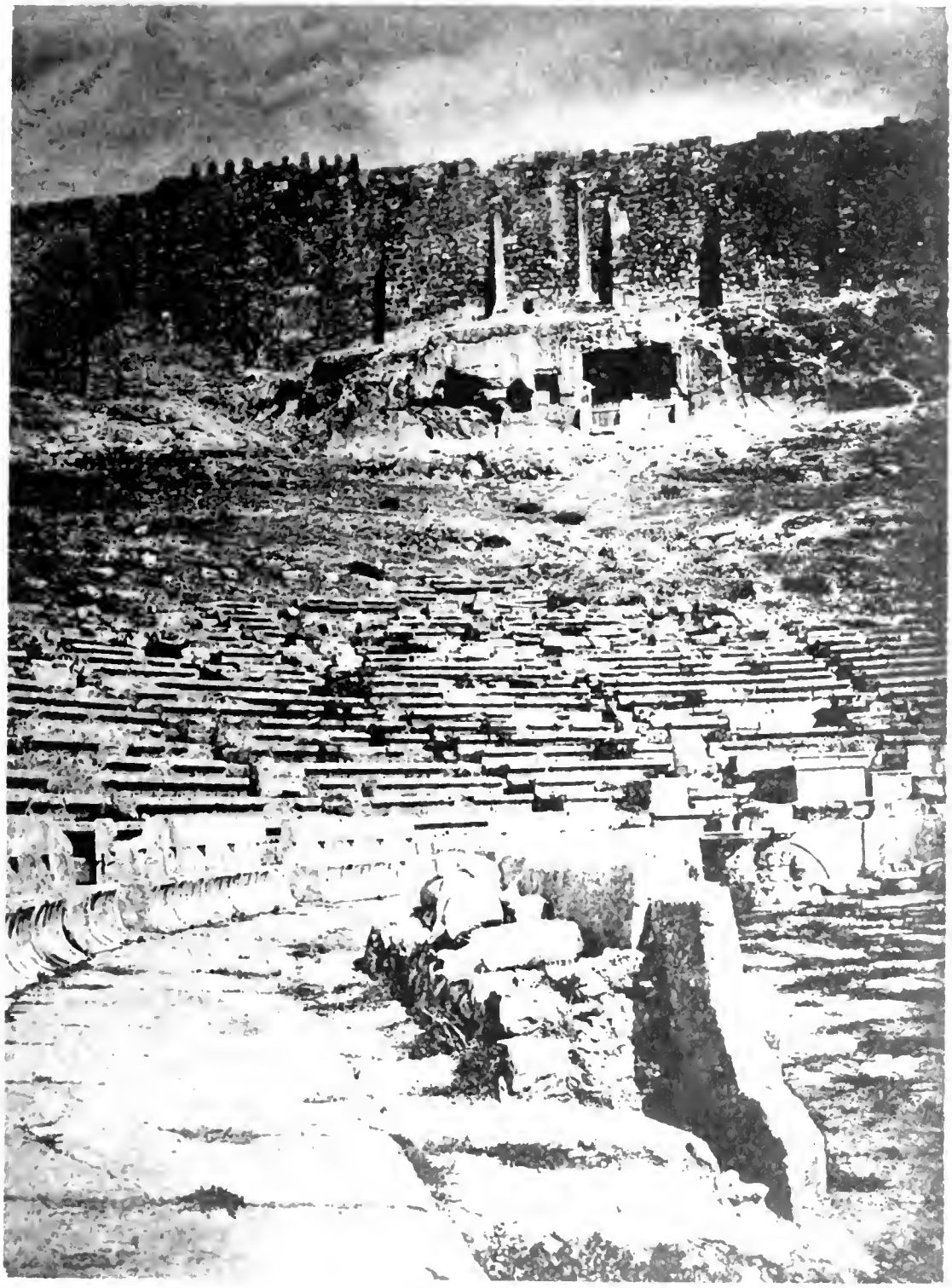
The plan of the Theatre of Dionysus followed the general description which has been given above, but lacked the symmetry of the later Greek theatres. It was built rather to meet the conformation of



the ground and the situation of the adjoining rocks.

The inside boundary of the auditorium consists of a semi-circle with the two ends prolonged in parallel straight lines. This is one of three usual arrangements and gives the best view of the stage. The fore-walls of the auditorium (a-a,f-f) would, if prolonged, meet in an obtuse angle in the orchestra, one of two schemes found in Greek theatres. The auditorium seated approximately thirty thousand spectators, its interior was decorated with many commemorative monuments and statues. Porticoes where spectators could seek shelter from the storms surrounded the auditorium.

The orchestra, stage and stage-buildings were altered in later Greek and again in Roman times, their restoration is necessarily much more conject-



Theatre of Dionysus at Athens.

ural and imaginative. Yet it may be definitely ascertained that the altar held its accustomed place in the center of the orchestra, and that there existed a gutter around the inside boundary of the auditorium, with the usual water-courses for carrying away whatever storm-water that might fall into the theatre. The other parts are restored from descriptions with little basis of tangible structural evidence th support their statements. Behind the orchestra the stage-buildings rose to the same elevation as the rear of the auditorium. These contained dressing-booths and even rooms in which the performers could be domiciled. The facade on the side toward the auditorium represented a palace, and was as we are told "adorned with magnificent columns". Against this facade was placed a long narrow platform about twelve feet in height and only a few feet in depth. This stage was reserved for the actors as opposed to the chorus in the orchestre below.

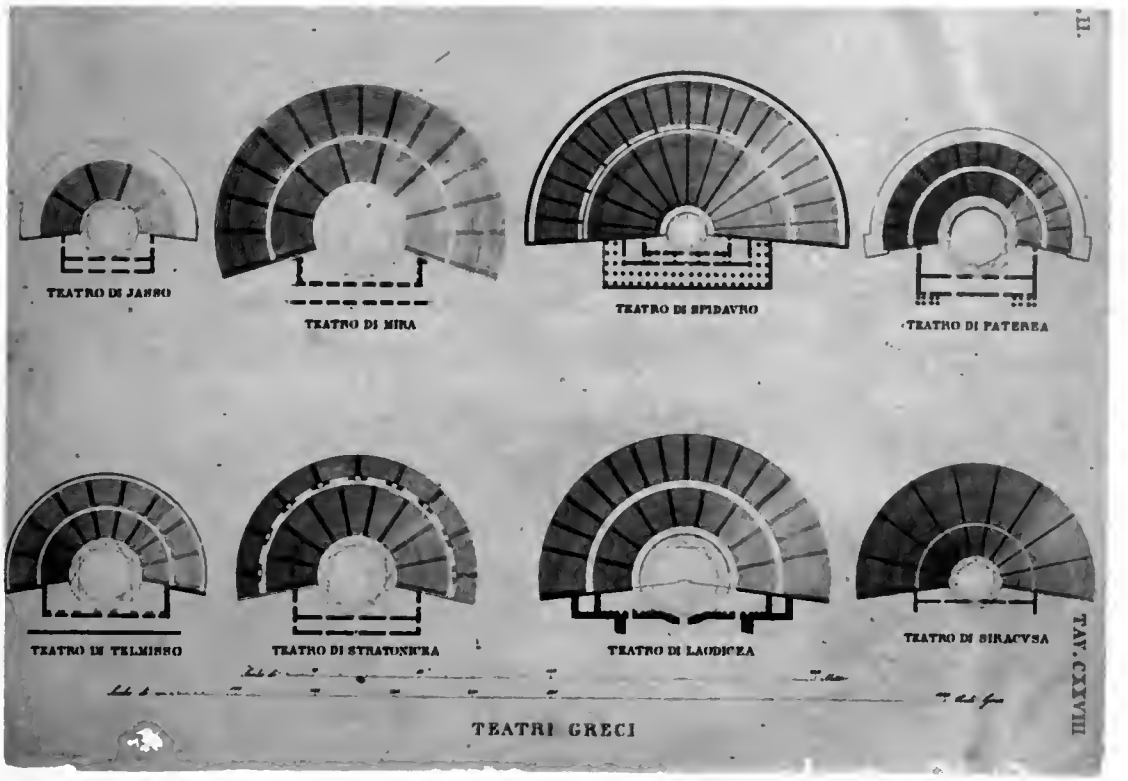
Obviously in considering these past theatres one must always realize the essential differences between the external features of the ancient and modern drama, and also remember that the general spectacle presented by the interior of a Greek theatre during the representation of a drama must have been quite unlike anything to which we are accustomed in our modern times. Those of us who have been so fortunate as to have viewed similar types of production, or even the same dramas that were produced in this theatre, in our own Greek Theatre or in any one of the several other open-air theatres of thday may more nearly visualize the spectacle. The open-air building, the rich sculpture, decorations and hangings, the performance in broad daylight, the vast crowds of spectators, the chorus grouped together in the center, the little group of gorgeously robed actors raised on the high, narrow stage behind them, what a scene it must have been. And what a riot of color, almost kaleidoscopic in its variety and medley. And what dramatic value of situation: the large,

over shifting group of the chorus dominated in every way by the little group of actors: dominated by their position, by their spoken words, by the far richer and more splendid costumes, even by their very repose. The most imaginative spirit could conceive of no situation affording stronger contrast or more satisfying balance.

General Discussion of Greek Theatres.

After the building of the Theatre of Dionysus at Athens other cities, seeing their advantages, began to erect permanent theatres of stone. All, however, kept the general characteristics which had been established in the wooden structures. The changes are merely of minor elements, and are due for the most part to refinements in design.

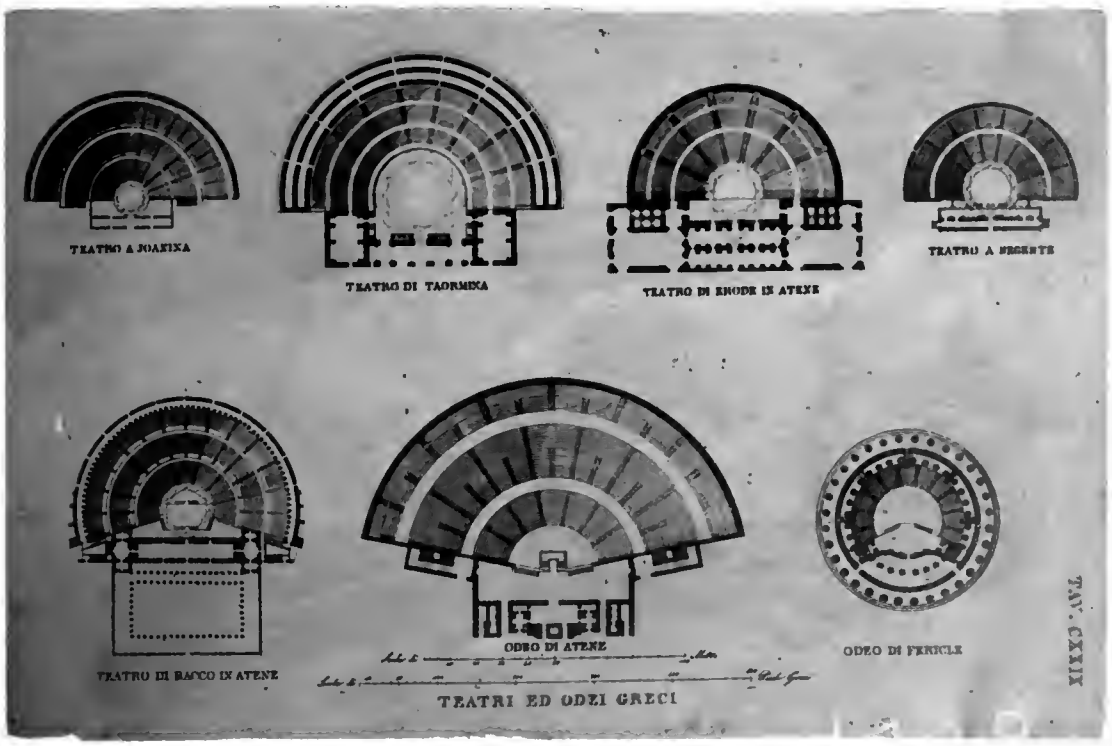
There were two general classes of arrangement of the fore-walls of the auditorium: The one in which the walls if prolonged would meet in an obtuse angle in the orchestra, as described in the Theatre of Dionysus, and also used at Epidaurus, Mantinea, and the Peiraeus; the other in which the



in which the walls would form a straight line parallel with the front of the stage, the Theatre at Megalopolis is an example, as are with very few exceptions the theatres in Sicily.

In the earliest period the inside boundary of the auditorium consisted of a semi-circle with the

two ends prolonged in parallel straight lines. This is the method employed at Athens, at Peiraeus, at Acrae in Sicily, at Termessus in Asia Minor and in a few other lesser important examples. The most general proceedure was to prolong the two ends of the semi-circle so that the inside boundary



formed about two-thirds of a regular circle. This is found in the greater majority of the Greek theatres. The third and most beautiful plan was that of Epidaurus, where the two ends of the semi-circle are prolonged in the form of an ellipse.

The Odei were merely theatres built to contain a limited number of spectators. They used the same general plan and employed the same elements, merely reducing the scale and, as naturally would be the case with a smaller and more delicate structure, refined and enriched ornament. They were often built in the same enclosure as and used in conjunction with the larger theatres.

Theatres, or Odei, or both , have been discovered in practically every city known to have been under Greek rule or influence for any length of time. A complete list of these theatres would be very long and wearisome, as some forty-six examples have been discovered, wholly or partly excavated and studied. Yet the names, locations and a few facts concerning several of the more important ones are almost essential. No attempt

has been made to list these theatres in chronological order. The first figure following the name of the theatre is the extreme diameter of the auditorium, the second is the diameter of the orchestra.

Theatres in Greece:--

Athens,--- seating capacity thirty thousand;

Epidaurus,--- 415 ft., 178 ft.;

Delphi,--- almost completely destroyed;

Dodona,--- probably altered by the Romans:

Sparta,--- 453 ft., 217 ft.

In Asia Minor:--

Aspendus,--- 400 ft., not fully excavated, well preserved stage and stage-buildings, 25 rows of seats;

Telmessus,--- not fully exaavated;

Ephesus,--- 660 ft., 240 ft.;

Priene,--- poor state of preservation;

Miletus,--- 474 ft., 224 ft.;

Tralles,--- 540 ft., 150 ft.

In Sicily and Lower Italy:--

Syracuse,--- 495 ft., 217 ft.;

Taormina;

Segesta,--- dating from the Fifth Cent. B.C.;

Fiesole;

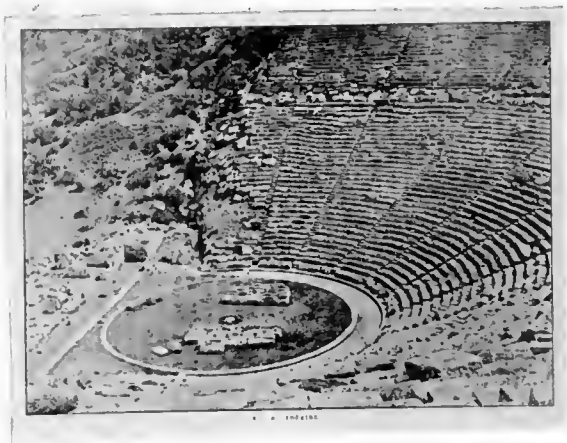
Pompeii. All of these theatres were altered in Roman times, in some cases to the point of almost complete obliteration of their Greek character.

In every case the theatre was located on a sloping hill-side. In some very few instances the natural site presented minor disadvantages that were overcome by the building of retaining-walls and filling in with earth. This choice of position is universal throughout the entire history of Greek theatres. Never did the builders of the Greek theatres fail to grasp the opportunities offered by the most obvious natural site.

The Theatre of Epidaurus.

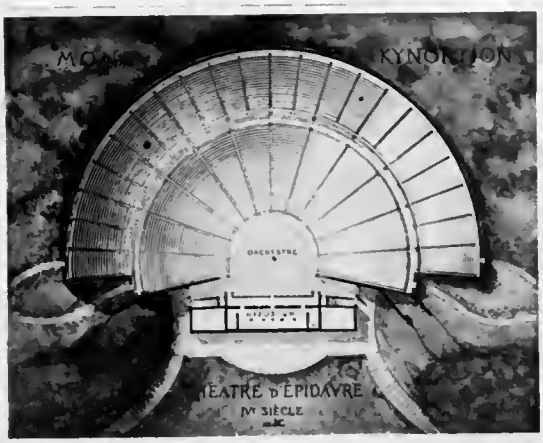
The Theatre of Epidaurus, known to history as the most important and splendid as well as the most beautiful of all the theatres of Greece, is, very fortunately, the best preserved and easiest to trace in all its parts of all the theatres of

purely Greek design. The stone steps which formed the seats are usually in place, and large fragments of the proscenium remain within reach. Thus its study and restoration depend much less upon the imagination, and consequently are much more to be relied upon.



In the study of theatres from few fragments and by comparisons with other structures both in the actual state and in the written documentd of the time, restoration is made easier and more exact by the ability to refer definitely to some authentic base, a fact which makes the splendid state of preservation of this theatre doubly fortunate. Ascribed to Polyclitos the Younger, so great was the fame of this theatre that it dominated the structures of its time and even exerted a great influence over the entire Roman period.

The site was just without the sacred peribolos of Askelepios upon the north-western slope of Mount Kynortios (Knyortion), in a wide ravine of such slope that a very little labor was required to form the requisite shape of the auditorium. The rows of ordinary seats and the seats of honor, or thrones, were constructed of the white limestone of the neighborhood, while the supporting walls at the extremities of the wings and the remaining substructions of the stage were built of tufa.



The arc of the auditorium is a little greater than a semi-circle and its curve deviates but little from a true geometric circle. The diazoma projects past the extremities of the exterior bounding arc and forms practically an inner auditorium containing thirty-two rows of

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ordinary seats and three rows of thrones, above the diazoma are found twenty-two rows of seats. These seats and thrones were constructed of blocks of hewn stone fastened to each other by iron clamps embedded in lead. Instead of being divided into separate seats for the spectators entitled to positions of honor, as in the Dionysic Theatre at Athens, the thrones of Epidaurus extend unbroken from stairway to stairway, and unlike the Athenian thrones do not bear inscriptions designating the privileged persons to whom they belonged, or for whom they were reserved. The three rows of thrones differ in height and in amount of sculptured decoration, the row nearest the orchestra being the most ornate and the highest. The ordinary seats of the lower zone are exactly similar in desigh and height to those of the theatre at Athens, those of the upper zone are higher and have square faces. Thirteen stairways extend from the orchestra to the porticoed terrace above the upper zone of seats, between each pair of these stairways above the diazoma is another stairway, thus the lower zone is

divided into twelve parts by the thirteen stairways, the upper zone into twenty-four parts by twenty-five stairways. This design is entirely different from that which Vitruvius gives as typical of the Greek theatre, which divides the lower and upper zones into seven and fourteen parts respectively.

The orchestra, as has been said before, is about one hundred and seventy-eight feet in diameter and has the form of a semi-circle with the two ends prolonged in the form of an ellipse. This was bordered with a passage paved with stone in which there was a gutter so arranged as to collect all the rain-water that fell into the auditorium and discharge it outside the walls. The inner rim of this passage was a complete circle passing in front of the stage wall, the demarcation of which was a narrow band of stone slightly raised

above the plane of the passage. This inner rim of stone was the outer boundary of the orchestra proper. This inner space was paved with a very densely packed bed of earth, sand and ashes; at its center is a circular stone in the center of which is a deep circular hole. This marks the position of the Thymele, the altar of Dionysus, which was brought into the theatre for the festival and about which the chorus grouped or danced, continuing the early tradition of worship from which the Greek drama derived its origin.

The stage, like all Greek stages, was approximately the same length as the greatest diameter of the orchestra, and quite high and narrow. The stage buildings were long and much lower than the usual, the scena not reaching the height of the level of the diazoma. All the usual rooms were included in the hyposcenium. This part of the theatre was remodeled in Roman times, and, in consequence, it cannot be definitely ascertained whether any unusual features had been included, but so much in sympathy were the remodelers and so truly did they adhere to the spirit of the design

that it is difficult to tell without very careful examination which parts of the structure are in their original state and which have been altered.

THE ROMAN THEATRE.

The Method of Laying Out the Roman Theatre.

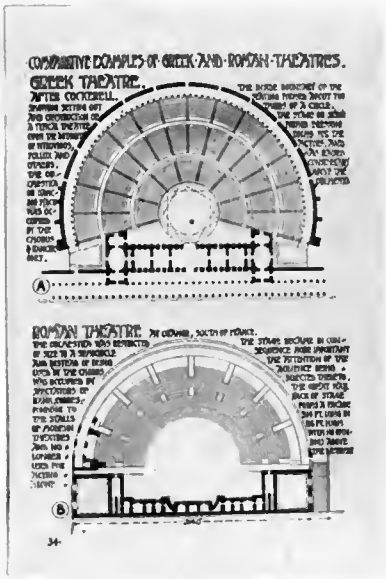
According to Vitruvius (book V, chap. vi) "The form of a theatre is to be adjusted so that at the center of the dimension allotted to the base of the perimeter a circle is to be described, in which are inscribed at equal distances from each other four equilateral triangles whose points must touch the circumference of the circle. ----- Of these triangles the side of that which is nearest the scene determines the face of it, in that part where it cuts the circumference of the circle. A line drawn parallel to it through the center will separate the pulpitum of the proscenium from the orchestra. Thus the pulpitum becomes more spacious and convenient than that of the Greeks, because our actors remain chiefly on the scena. In the orchestra we assigned seats to senators: the height of the pulpitum must not exceed five feet, so that

the spectators in the orchestra may have a clear view of the motion of the actors. The portions between the cunei (blocks of seats) of the theatre are to be divided so that the vertices of the triangles that touch the circumference may point to the direction of the ascents and steps between the cunei on the first praecinction or story. Above these the steps are placed alternately and form upper cunei in the middle of those below. The angles thus pointing to staircases will be seven in number, and the remaining five will indicate certain points on the scene. That in the center, for example, is the situation for the royal door, those on the right and left the doors of the guests, and those at the extremities the points at which the road diverges. The seats (gradus) for the spectators are not to be less than twenty inches in height nor more than twenty-two inches. Their width is not to be less than twenty-four nor more than thirty inches."

Differences between Greek and Roman Theatres.

"There is no essential difference", adds Vitruvius," between the form of the Roman and Greek theatre".

As is very often the case with any such very general and broad statement, he is partly right and wholly wrong. Right, for the Romans adopted all of the general elements of the Greek prototype in their design; wrong, for they adapted every one of these same elements to meet the needs of their own drama.



A single glance at the illustration will identify the change. The Roman drama confined its action to the stage with merely occasional recourse to the orchestra. Knowing this fact one could, by induction alone, prophesy the principal alteration in design. The action took place on the stage, therefore the view of the stage, supplanting the view of the orchestra, became the all-important consideration. The auditorium, naturally enough, was restricted to a semi-circle, and likewise the orchestra being but seldom

employed and then only as a minor feature, also took the form of a semi-circle and was partially filled with seats. The greater number of characters on the stage, a number of major characters having supplanted the three actors of the Greek Classical Tragedy and the chorus having been transferred bodily, demanded greater room for action. The stage became much longer, extending across approximately three-fourths of the open side of the auditorium, increased quite materially in depth and was considerably lowered.

The Period of Temporary Theatres.

Until almost the close of the Republic no permanent stone theatres were erected, the ancient discipline requiring that the structure should exist no longer than the performance lasted. This by no means acted as a deterrent to the production of plays. The lavish way in which the Roman pro-consuls and praetors built is exemplafied by the comparative indifference shown to taking advantage of natural sites. With practically not a single exception, the Roman

theatres, both temporary and permanent, were built up from a comparatively level plain. Temporary structures were of wood, built at amazing cost, decorated with singular magnificence, and often very wonderful mechanically. The most splendid of these temporary theatres was that of M. Aemelius Scaurus. The most ingenious was the building of two theatres side by side and so connected and hinged together that the two could be thrown around to form an amphitheatre.

The Permanent Theatres.

The first permanent theatre was that of Pompey, which, to avoid the animadversion of the censors, was dedicated to Venus and was so contrived that the seats of the theatre formed the steps of a temple to that deity. While the plan followed that of the Greek prototype rather closely, the direct inspiration was a temporary theatre at Mitylene of which Pompey's Theatre was an enlarged copy. The seating capacity was in the neighborhood of forty thousand spectators, the theatre was completed about 54 B.C. Although it was a stone structure there is no doubt that a

portion, probably the seats and scenes, was built of wood, as history records several destructions by fire.

The next theatre of stone was built by Julius Caesar, the third by Augustus in honor of Marcellus. This last, known as the Theatre of Marcellus, is one of the structures upon which a great deal of the study of Roman theatres is based, for enough of the auditorium stands intact in the ruin to trace its elevation and compute its extent. The stage buildings have practically disappeared, but are fortunately preserved in the Theatre at Orange, in the south of France, where the great wall forming the back of the proscenium stands almost entire, one hundred and forty feet high, and displays the typical colonnaded and roofed Roman stage open on one side only. Two theatres have been brought to light in the excavations at Pompeii, together with many documents concerning them.

The Typical Roman Theatre.

From the data obtained from these structures one is able to construct the typical Roman theatre. In the auditorium, which, as has

been said before, was constructed upon level ground, the relief necessary was obtained by a very elaborate system of vaults, sometimes cylindrical, sometimes conical in shape, supporting the cuneus or half cone of seats. The exterior was a perpendicular wall, semi-circular in plan, decorated with two, or more often three, rows of superimposed orders. The entrances were into a vaulted corridor under the first order, the vaults supporting the cuneus formed a very complete, spacious and ample system of staircases which enabled the spectators to reach their respective places. The cuneus, or auditorium as a whole, was divided into three praecinction, horizontal bands or zones. The lower one of these zones was the orchestra, now given over to the seating of the Senators and other dignitaries. A low wall separated the orchestra and stage. A diazoma separated each zone from its neighbor.

The stage, in its enlarged and lowered state, was backed by a somewhat elaborate architectural wall, ornamented with two or three rows of superimposed orders, free-standing or engaged, and

penetrated by three large and several minor openings. The scene, instead of representing the front of a palace or temple as at Athens and the other Greek theatres, depicted a market-place

with several streets leading into it. The Romans also provided their stage with a curtain, a thing proved unknown to the Greeks by the fact that they were always careful in their drama to provide for easy and graceful entrances and exits, permitting the scene to open and close with a bare stage. The curtain was a light frame worked from below, being lowered at the opening of the play and raised at the close. The dressing rooms and other stage buildings are practically identical with the Greek, and need no special description.

At first the theatre was quite open, but it was not long before more attention was paid to the comfort and protection of the spectators. Large

sheets of canvas or other cloth operated upon and by cords were streched over the auditorium. Some theatrical notices have been found among the ruins in Pompeii which promise that the spectators attending the theatre shall be protected from the sun.

At the close of the First Century B.C. the principal Roman theatres were:- that of Scaurus, constructed by Scaurus, son-in-law to Sylla, the Theatre of Balbus Cornelius, built under Augustus, and entirely constructed of marble; those of which a more extended description has already been given. The provinces also held some notable theatres, among them were:- the theatre at Orange, and the two at Pompeii, which have been noted above; at Lyons; at Herculaneum; in the commune of St. Andre-sur-Cailly; in the East at Antioch: the Hippodrome at Constantinople, built by Emperor Septimus Servius in the Sixth Century A.D.

were temporary scaffolding in two superimposed levels. The upper level represented Heaven or Paradise, the lower was the Earth and was where all scenes of a secular character were portrayed. To this was added the mouth to Hell, which took the form of the yawning mouth of some fabulous monster. In the later productions a single level was used for the stage, being divided into compartments for the representation of the various localities. Even on these crude stages the mechanical devices were often suprisingly good.

The plays, a series of religious and semi-religious allegories, are roughly classified into several groups according to the locality of presentation, and the type and style of teaching, whether wholly religious, wholly educational, a combination of the two, or in the last part of the period, political, under such names as Mystery Plays, Miracle Plays, Liturgical Drama, Religious Drama, Passion Plays (of which the Oberammergau Passion Play is a living example), Chester Mysteries, Coventry Plays, and several others. A discussion of their differences is apart from the purpose of

this paper, sufficient to say that from their presentation came the presentation of plays for pleasure only, Comedy and its attendant, the Masque, not appearing until the Fifteenth Century.

THE MEDIEVAL PLAY-HOUSE.

Although in 1548 the Paris Confraternity of the Trinity constructed a theatre licensed to produce "profane plays of a lawful and honest character", this structure contained neither seats, scenery, or any other requisites to dramatic presentation. Hence "The Theatre", built in the year 1576, in the Moore)Fields, just outside of the city limits of London, was a structure without a prototype, and it ranks not only as the first permanent English play-house but also as the first organized public theatre in modern Europe.

"The Theatre" and "The Curtain".

The Theatre was an octagonal wooden structure, as was the Curtain, built a few years later. Authentic details, and particularly drawings, of these earlier theatres are totally lacking, their study is carried on almost wholly by deduction,

stage directions and other data obtained from plays known to have been written for these theatres being compared with similar data obtained from plays written for houses of which the details are more definitely known.

The Elizabethan Playhouse.

The center of the theatre, "the pit", was open to the sky, as roofs were carried only over the galleries and stage buildings. The stage projected out into the pit, or yard, as the orchestra was termed. This platform stage was joined directly to the dressing and property rooms, or "tiring house". The stage facade of the tiring house recalled the backgrounds of the earlier temporary stages in the inn-yards, and gave two frontal doors, the normal entrances. The stage arrangement permitted of the division of action into three distinct parts. There was first the outer platform, or stage proper. Behind this was the "inner stage" formed by a central opening between the two frontal doors and closed off when not in use by a pair of curtains known as "traverses". At the back of this recess was the "mid-door" often met with in old stage

directions. Interior scenes were presented in this inner area, which was upon occasion a cave, arbor, counting-house, prison, shop, tomb, tent, study, or even bed-chamber. The third division was known as the "upper stage", a central room on the first story of the tiring-house immediately above the inner stage. This room was fronted with a balcony, and was ordinarily concealed when not in use by another set of traverses. The upper stage was used with absolute indifference as to propriety for any scene that required height, serving equally well for city walls, Antony's rostrum, Juliet's bedroom, or the lookout of a vessel. In the tiring-house, on the same level as the upper stage, were constructed a few latticed boxes for spectators, one of which was distinguished by the name of "the Lords' Room", concerning which many stories are written.

Soon arose the problem of protecting the actors and their costumes, which were often very rich and costly, from the elements without unduly darkening the house or obstructing the view of the spectators. This was solved by erecting over the

stage at the same elevation as the ceiling of the uppermost gallery of the auditorium a sloping half-roof of tile, thatch or lead, inclined toward the pit. This curious makeshift, known indifferently as "the shadow" or "the heavens" both afforded the requisite shelter and served as a sounding-board. Proof of the "heavens" in a peripd as early as Burbage's Theatre is found in Nash's metaphorical preface to the "Astrophel and Stella" of Sidney (1591)-----

> "Let not your surfeited sight, new
> come frô such puppet play, think
> scorne to turn aside into this
> Theatre of pleasure, for here you
> shall find a paper stage streud
> with pearle, an artificial heau'n
> to ouershadow the faire fame,
> and christal wals to encounter
> your curious eyes, whiles the
> tragicommedy of loue is
> performed by starlight,----------"

Surmounting the tiring-house in the early public theatres, at a slight elevation above the

galleries was the "turret" or "hutch". From here the flag bearing the symbol of the house was flown an hour or so before the performance. From here three"trumpet blasts" were blown at short intervals before the entry of the Prologue. In short, the turret, very far from being an ornamental structure solely, was put to a great variety of uses. Through its apertures stage ordnance were let off, a practice that led to the destructive fire at Shakespeare's"Globe", which will be spoken of later in another connection. Here thunder was simulated by "roll'd bullet" and "tempestuous drum", Here was situated the windlass and other rude machinery by means of which the "creaking throne" or the very substantial deity-bearing cloud was lowered.

The auditorium of the Elizabethan public theatre may be said to have attained completeness at the outset, so few and trivial are the variations that can be traced. To these first English theatre builders is due the credit of having originated the modern system of three galleries, an arrangement commented upon by Samuel Kiechel of

Ulm, a noted globe-trotter, when he visited London in 1585. Apparently the upper gallery was left open, while the other two were divided into commodious boxes.

So far as can be determined, no Pre-Restoration playhouse had separate entrances to the individual sections of the building. The Elizabethan public theatres were provided with only two doors; one for general admission and leading into the pit with inner stairways to serve the galleries, the other led into the tiring-house and was used by the actors, the occupants of the "Lord's Room" and other private boxes, and the stool-holders who sat upon the stage. A letter to Sir Ralph Winwood from Chamberlain, dated July18, 1613, tells of having witnessed the fire which destroyed the "Globe" during the presentation of a play given on St. Peter's Day, and comments upon the lack of exits:-------

> "Which fell out by a peal of chambers (that I know not upon what occasion were to be used in the play), the tampin or stopple of one of them lighting the thach that covered the house, burn'd it down to

the ground in less than two hours with a dwelling house adjoyning; and it was a great marvaile and fair grace of God that the people had so little harm, having but two narrow doors to get out. ------"

This curious restriction of the number of entrances was due to the continuation of the practice of cock-fighting and bear-baiting times, and lasted until considerably after the Restoration. The system was that of preliminary payment at the door, and a subsequent "gathering"inside according to the location of the spectator. The proprietor rarely, if ever, leased the house to the players, preferring to take a percentage of the receipts, a system which meant prompt payment and less risk to both parties concerned.

Private Theatres.

Private theatres began to make their appearance, patterned much after the castle halls, the scene of former productions. These became very popular, both on account of their greater exclusiveness and the greater comfort and shelter which they afforded the spectator.

Title and Locality Boards.

To prevent misunderstandings, as the play-goer had the right to quit the theatre without payment previous to the appearance of the "gatherers", it was usual, in public and private theatres alike, to display on the stage, from the time of the opening of the doors to the opening of the play, a title board indicating the piece that was about to be performed. Despite this habituation of Elizabethan audiences to inscribed boards there is very little reason for the belief that all changes of scene were indicated in a similar manner. Almost all available evidence tends to prove this practice to have been unusual, and that locality boards were resorted to only for greater clearness in such plays as "Pericles" where the action oscillates rapidly from one country to another, or in plays of the Marlowean order where the scene occasionally changes while the characters remain upon the stage.

Blackfriars.

The building of "Blackfriars" is one of the most important points in theatrical history. So radical was the advance that, although the

structure belongs chronologically to the Elizabethan era, it should logically be considered a Post-Restoration, or Modern theatre. Its divergence from type was greater than the divergence of the Roman theatre from its Greek prototype, or of the theatres preceeding it from the inn-yard. No Continental playhouses have been considered in this period, as they were almost exactly similar with those of England and dated a few years later, and the English theatre-builders, with no foreign influence developed Blackfriars. The era of the roofed theatre, with acting by artificial light, was here firmly established. Again, Blackfriars was the first of the rectangular, as opposed to the semi-circular or octagonal houses. It also possessed the first rectangular auditorium.

It is true that many of these radical changes were due wholly to preexistent circumstances, Blackfriars being constructed in an old monastic hall sixty-six feet long by forty-six feet broad, and on the second floor. In all probability these very restrictions and disadvantages spurred the designer on to greater effort, certainly they

caused him to seek his solution along new lines. And the triumphant solution of these difficulties created many innovations of practical issue, no one can tell just how much the modern"picture-stage" was hastened.

The pit, from being the worst, became the best part of the house. It was no longer at the mercy of the elements, and it was furnished with seats in gradually ascending rows. The usual three galleries were provided, running along three sides of the rectangular auditorium.

The stage was, through necessity, even more radically altered. It could nor, as formerly, project out into the pit, therefore it became materially shortened in depth. To maintain its area, them, it was increased in breadth to extend completely across the hall. Since the house was designed for none other than theatrical exhibitions, the stage, instead of being removable, was a permanent structure, boarded in below and embellished in front with a carved balustrade. The playwrights and mechanics promptly took advantage of this permanent stage for the better working of

traps and other effects, and for speaking in the cellarage, as the ghost in Hamlet. There being no projection possible in the front of the tiring-house, the action toward the sides of the stage became more important and the balcony was lost. To obviate this difficulty the designer of Blackfriars placed the two main entering doors, each with a projecting balcony, in an oblique position at either end of the tiring house. This arrangement proved so satisfactory that it was adopted by all subsequent public and private theatres, with the exception of one or two which were built for a variety of purposes.

The period of the platform stage closed with no further innovations. Although a number of theatres were built after Blackfriars, all retrograded to the earlier type, Blackfriars standing alone as the genesis of the "picture stage" of the Post-Restoration and modern periods. Yet one cannot say that the platform stage passed away and left no trace, for it did leave a great heritage of physical characteristics and of conventionalities which influenced the picture-stage even until the middle of the Nineteenth Century.

THE MODERN THEATRE. The development of the modern theatre is based upon the type set at Blackfriars. A detailed description of the various steps by which the theatre attained its present form would be entirely too long to be included in this paper. Sufficient to say that the changes were brought about by the very influences which will be discussed as operating upon the design of the modern theatre, aided by some very remarkable inventions in, or application of inventions to, stage mechanics and theatre illumination.

Theatres may be divided into five general classes according to their control and ownership. These groups are not actually as clearly defined as the table would lead one to believe, but in a very large measure overlap and embrace one another. They may be classified as follows:--

Court Theatres, established and maintained at the expense of the reigning monarch.

National and Government Theatres, conducted as public institutions for the benefit of the people as a whole, and for the assistance

they may render to Art, Literature and Education.

Municipal Theatres, built and controlled by municipalities for educational and recreative purposes.

Subscription Theatres, built or subsidized and controlled by the educated and wealthy to satisfy the desire for the luxury of good or educational plays.

Private Theatres, common to all countries, but primarily an English and American institution, financed and managed by private individuals purely as a business investment, the largest of all the classes of theatres.

These theatres are very similar in design and construction. A modern theatre consists of two distinct parts or houses closely attached to each other, but very different in design and purpose. The one of these is devoted to the presentation of the spectacle, the other is given over entirely to the spectators and the provisions for their comfort.

The Stage Building.

In exterior design the stage building is usually very frankly accused, as in the "Theatre de l'Opera" at Paris. Here one finds a simple structure, rectangular in form, covered with a low-pitched roof, rising above the auditorium and forming a very striking contrast to it in size, in shape and in the much simpler decoration. This is not only a very logical but also a very beautiful and realistic solution of a difficult problem in expression.

The interior of the building is also a difficult problem for the architect. On the side turned toward the audience he must build the great proscenium arch in such a manner that it will frame the stage and be compatible with the other arrangements of the auditorium. The stage projects at this point some distance in front of the proscenium except in some few instances, such as the Theatre of Bordeaux where the whole arrangement of the proscenium wall is unusual and includes towers of masonry which are utilized for boxes.

Behind this proscenium arch is a large unobstructed room, the stage. Arranged as conveniently

as possible to this are the various appendages:- dressing rooms, one or more foyers, private offices and other rooms, and storage space. The stage rises unobstructed to the roof, with galleries or "fly-ways" and corridors surrounding it for the operation of the scenery and stage machines. One and often two basements are found under the stage, these are also filled with elaborate machinery. This is the myaterious "behind the scenes", a source of wonder to the layman. Even more wonder would be his if he could see the complexity and unity of action in the presentation of some scenic effects of a play staged by such a master as David Belasco. The results seem so simple, and the illusion so perfect that it is almost impossible to realize the co-ordination of men and the complexity and intricacy of machinery necessary to bring the effect into being.

The application of electricity to mechanics and lighting completely revolutionized theatrical and dramatic presentation. Gas as an illuminant had a marked influence, but its range was limited. With electricity any desired light effect may be produced, and may be blended into any other effect,

A scene may change from noon-day sun to a most perfect starlight, a light may be "hot" or "cold" at will. Machines are everywhere. The floor surface of the stage may, by the use of hydraulic power electrically controlled, be raised or lowered, tilted to any desired angle, or even be dropped to a floor below for the changing of a set scene, doing away with the necessity of storing scenery in valuable space in the wings. "Flies", "drops", all scenery which is dropped from the space known as the "rigging-loft" directly over the stage may be raised and lowered by electric winches, as may the "gridiron" from which they are suspended. The curtain of the National Theatre in Mexico City is a great piece of Tiffany Art Glass weighing over seven tons, it may be raised and lowered at any desired speed by the mere movement of a tiny lever. In short, electricity is a very useful servant in the production of a play, doing all the heaviest work rapidly and expeditiously.

The Auditorium Building. The building which contains the auditorium often contains so much in addition that on plan the auditorium seems but a minor consideration. This

is particularly true in the Court, National and Municipal Theatres. But in any large modern theatre as much superficial space on any one horizontal plane is occupied by lobbies, staircases, public foyers and the like as for the auditorium, the crux and heart of the whole design. One finds this more in the Continental theatres, where great salons and promenades are provided for the spectator, where he may enjoy himself during the performance or between the acts. Such features are rather less prominent in the English play-house and are rathe r a rarity in the American structure. The development of the modern theatre has resulted from the natural evolution of a central idea, to make a limited number of people very comfortable during certain hours of the day and to provide for their convenient exit from the building in a very short space of time, either in a case of necessity as in any sort of a panic or for the convenience of both spectators and attendants.

This matter of exits is especially important, and is not adequately met by providing certain door-ways that may be thrown open in case of need.

The requisite is that the doorways known to the public and in daily use shall themselves be sufficient for any emergency, allowing of unincumbered exit by the mere withdrawing or throwing down of slight temporary barriers. This lesson has been taught at great cost of human life by several disastrous theatre fires. There are many stringent laws concerning the fire proofing and fire protection of theatres, and the number and size of exits, all tending toward the safety of the spectator.

The size of the auditorium and stage are almost wholly dependant upon the class of play which is to be presented. Productions may be broadly classified under six general headings:---
Grand Opera; Opera Comique or Musical Comedy; Tragedy; Comedy; Variety or Vaudeville; Motion Pictures. Seldom is a theatre built for one type of performance, the successful planning of a house depends upon its adaptibility for double purpose, the requirements of stage and auditorium for the succesful rendering of a Tragedy being very different from those imposed by Grand Opera.

must be very much larger to accomodate elaborate scenery, choruses and ballets.

There has grown to be a curious demand for splendor in the interior decoration of the parts of a theatre occupied by the public. The response to this demand has been too often not in quiet and dignified beauty due to good proportion and simple color scheme, but in the most elaborate and highly ornamented styles of the most florid periods known to architecture. In all too many of the theatres of today one would be half tempted to believe , as far as interior decorating was concerned, the jocular remark that "Colored marble is the keystone of all architecture!" Gilding and brilliant coloring spread themselves over all available ornament, and ornament is applied to any place that can be utilized for this purpose. While this type of decoration is often very beautiful, (more often not, unfortunately) it is as often quite unsuitable. There is the psychological argument, that the decoration excites and stimulates the audience and makes them more receptive to the play. In answer to this; a theatre is serving its purpose

only when an audience is present. The relation of this crowd of people to their surroundings is often lost sight of, an audience may kill the most glorious color-scheme ever imagined. Furthermore, if the unrest of the ornament is sufficient to excite the audience it is almost certain to distract attention from the stage, and any lack of harmony between the audience and its surrounding decorations would be very obtrusive and serve still further to distract. The architect, and the owner as well, should, for the best interest of the theatre and its productions, consider the audience and its setting with the same care and in the same manner as a producer will consider the relation of actors and scenery in the production of an effect on the stage.

With the recent invention of the Kinetograph and Kinetoscope by Thos. A. Edison a new type of production was created. The essential parts of a Motion Picture Theatre are extremely simple. The first is an ample lobby containing a ticket kiosk. The second is an auditorium. A curtain, usually framed with a proscenium arch of some type and

purposes, for recreation and amusement, and for the presentation of dramatic art in its highest sense. Yet all these changes bear out the statement made in the introduction that Architecture, or any special branch of Architecture, springs into being only in response to a demand, is modified to meet changes in demand, and ceases to exist when it ceases to be the most logical, economic and satisfying solution of the problem presented by the needs which it is to fill.

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